

# Documentation for **get\_states** revised May 5, 2005

## 1.0 General Information

### 1.1 Application Description

This program populates the `statessacsma` and `statessnow17` database tables from a print of NWSRFS model carryover states for the SAC-SMA and SNOW-17 operations. This program is written in esql/C.

### 1.2 Design Considerations

The program parses the needed information from NWSRFS `fcst` outputs of carryover states. See Attachment A for a sample input deck and NWSRFS User Documentation for more information.

### 1.3 Application Assumptions

Assumes the carryover dates to be in Z time.

It gets the year for the carryover from `LSTCMPDY`, if it is available within the file, or from the model run date in the file extension. It looks for the date before the last '.' in the filename; for example it expects a filename in the standard NWSRFS format: `[file_name].date.time`

## 1.4 Enhancements/Bug Fixes/Changes

### Build OB4

#### ***Enhancements***

- The program has been changed to accept a user-named input file. This flexibility allows the user to easily differentiate between files containing snow states versus sac-sma states.

### Build OB6

#### ***Bug Fixes***

- R1-49 The frozen ground index, FGIX, is set to "0" in the `statessacsma` table, while in the input file, for the most part they are non-zero.

## 2.0 Configuration Information

This program makes use of the following apps\_default token:

adb_name	archive database name
adb_dir	archive base directory

A log file is written to  $$(adb_dir)/logs/nwsrfs/get_states.log$

The input file is expected to be in the directory  $$(adb_dir)/data/nwsrfs$ .

## 3.0 User How-To

The first step is to create a file containing SAC-SMA and/or SNOW-17 model carryover that will be used as input to the program (see Attachment A and NWSRFS User Documentation for help with this). The resulting file(s) should be named *fcst.\** and must be placed in  $$(adb_dir)/data/nwsrfs$ .

The program can be run on the command line by simply typing *get\_states*. Optional command line arguments control the 'test' and 'debug' modes (these must be entered before any other arguments):

- t = test mode; do not write to database
- d = debug mode; write everything to the log file

Other command line arguments, also optional if the default values are acceptable, are:

1. program version; options are 'oper' (default) or 'spin'
2. input file name; options are a single file name or 'all' to loop through all *fcst.\** files when using 'spin' version – default is for the program to use the latest *fcst.\** file (based on file modification time) available in the input directory

In the 'oper' version the program will parse carryover values from a single file, while in the 'spin' version the program will parse carryover values from multiple files (oldest to newest based on file modification time).

## 4.0 Troubleshooting Information

A log file is created in  $$(adb_dir)/logs/nwsrfs$ . If the user still has problems, contact the RFC Support Group.

## **5.0 Maintenance Information**

Originating Programmer/Office: Alcorn, Brenda  
Colorado Basin River Forecast Center  
Salt Lake City, UT

Maintenance Programmer/Office: Alcorn, Brenda  
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## **6.0 References**

Archive Database data dictionary  
NWSRFS User Documentation

**Attachment A**  
**Sample fcst input deck**

@SETOPT PRINTOPS  
PRNTCGRP CBRFC\_F  
PRNTLAST 10  
PRNTOPER SAC-SMA SNOW-17  
@COMP PRINTOPS